

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : Confirmation No. 1853

Hayahide YAMASAKI : Attorney Docket No. 2005 1598A

Serial No. 10/553,265 : Group Art Unit 1796

Filed December 1, 2005 : Examiner Helen L. Pezzuto

POLYANILINE-CONTAINING

COMPOSITION : Mail Stop: RCE

## **REPLY TO ADVISORY ACTION**

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 THE COMMISSIONER IS AUTHORIZED TO CHARGE ANY DEFICIENCY IN THE FEE FOR THIS PAPER TO DEPOSIT ACCOUNT NO. 23-0975.

Sir:

The Advisory Action mailed May 12, 2008 indicates that the proposed amendments filed May 5, 2008 will not be entered because they raise new issues that would require further consideration and/or search. The filing of the RCE concurrently herewith should ensure entry and consideration of those amendments.

The Continuation Sheet attached to the Advisory Action indicates that the proposed amendment to claim 1 would change claim 1 into product by process format. The Examiner further states that it is well known that the patentability of the proposed claimed invention is determined based on the product itself, not on the method of making it.

However, as noted in MPEP 2113, the structure implied by the process steps should be considered when assessing the patentability of the product-by-process claims over the prior art.

As further noted in MPEP 2113, the Examiner must provide a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process. Therefore, Applicant respectfully submits that it is incumbent upon the Examiner to provide a rationale tending to show that the presently claimed product

appears to be the same or similar to that of the product of the La Fleur et al. reference relied upon by the Examiner in rejecting the claims.

In fact, Applicant takes the position that the product (a polyaniline-containing composition) of the present invention defined by the claim 1 is different from the product (an intrinsically conductive copolymer) in La Fleur et al. in respect to the molecular weight and dispersity of the polyaniline.

That is, the product of the present invention is superior in the degree of polymerization of polyaniline and the degree of dispersion compared to that in La Fleur et al. In the reference, since aniline monomers are polymerized in the presence of an emulsion polymer, the polymerization reaction of aniline is very slow, giving only a polyaniline of relatively low molecular weight (see the second full paragraph on page 2 of the present specification). On the other hand, in the present invention, an acid group-containing monomer is emulsion-polymerized in the presence of a polyaniline which has been polymerized in advance, and therefore, higher polymerized polyaniline is obtained.

However, it is not easy to precisely measure and determine the molecular weight and the dispersity of polyaniline in the composition. Therefore, the present invention is defined by the product-by-process language, which makes a sharp distinction between the product of the present invention and the product in La Fleur et al.

The product in La Fleur et al. is described in the background art and is practically equivalent to Comparative Example 2 in the present application. Superiority of the present invention over Comparative Example 2 is explained in the first two full paragraphs on page 2 of the specification and the second paragraph below Table 1 on page 17.

Since the product of the present invention contains polyaniline of a higher degree of polymerization that is evenly dispersed compared with the product in La Fleur et al., a coated film made from the composition of the present invention has higher conductivity, sufficient water resistance, strength and flexibility. Especially, superiority of conductivity of the coated film of the composition clearly proves a higher molecular weight of polyaniline, that is, a higher degree of polymerization of polyaniline.

Accordingly, the product of the present invention is neither known nor obvious from La Fleur et al.

Respectfully submitted,

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